

## **Summary of Highlighted Milwaukee County Projects, 2001–2006**

### **Streambank Stabilization (Goal 1)**

#### **2003 Streambank Inventory**

**Project Status: Complete**

This project inventoried streambanks and streambank conditions within Milwaukee County. Manmade structures along the streams were also inventoried. The final results were used to create an interactive GIS tool.

#### **Hansen 13th Hole Streambank**

**Project Status: Active**

This project will correct an eroding bank in a stream within Hansen Park golf course. The project will involve either the use of gabions or riprap to secure the bank.

#### **Honey Creek-Site 13**

**Project Status: Complete**

This project involved the removal of the existing gabion wall and the construction of gabion baskets and mattresses for streambank stabilization. This was partially funded through a WDNR Urban Nonpoint Source Grant

#### **Lake Evinrude**

**Project Status: Complete**

The purpose of this project was to perform streambank stabilization along approximately 1,000 feet of Lake Evinrude shoreline. The project consists of excavating selected areas along the shoreline, adding filter fabric, bedding stone, large fieldstones and wetland and shoreline planting. This project was partially funded through a WDNR Urban Nonpoint Source Grant.

#### **Menomonee River Streambank Stabilization**

**Project Status: Active**

This project will stabilize a failing streambank on the west bank of the Menomonee River across from Hart Park in Wauwatosa. The River is scouring soil from behind an 11-foot high intact stream wall constructed by the Federal Works Project Administration during the 1930s. The destabilized streambank threatens current development in Hart Park. The solution is a bioengineered bank treatment with a large rock structure along the toe of the bank.

#### **Wehr Nature Center-North Drainage Erosion**

**Project Status: Active**

This project is to correct an erosion problem along a ditch. The project includes regrading the ditch and placing heavy riprap along the bottom and sides of the drainage ditch for stabilization. The drainage ditch will be armored with fieldstone and drop structures, in certain locations. A WDNR Urban Nonpoint Storm Water Grant partially funds this project.

#### **Wehr Nature Center-South Drainage Erosion**

**Project Status: Active**

This project is to correct an erosion problem along a ditch. The project includes regrading the ditch and placing heavy riprap along the bottom and sides of the drainage ditch for stabilization. The drainage ditch will be armored with fieldstone and drop structures, in certain locations. A WDNR Urban Nonpoint Storm Water Grant partially funds this project.

#### **Zablocki Park Streambank**

**Project Status: Active**

Eroding banks within Zablocki Park will be stabilized with coconut/straw fiber erosion mats, limestone riprap, and the creation of a forebay. A deep-rooted native seed mix will be planted for added stability.

## **Stormwater Quality / Best Management Practices (Goal 1)**

### **Wisconsin Avenue Lagoons**

#### **Project Status: Complete**

A 1995 Nonpoint Pollution Study of the County Grounds found that sediments had reduced the depth and volume of the historic lagoons, the banks were sloughing off, and the overflow structures were in need of repair. This project drained the ponds, dredged the sediments, and installed a native plant buffer in order to improve storm water quality on the grounds. The project was funded by a WDNR grant.

### **South Shore Storm Water Treatment Device**

#### **Project Status: Complete**

This demonstration project with the Milwaukee Metropolitan Sewerage District and the Wisconsin Department of Natural Resources installed a trench drain along the front edge of the South Shore Marina boat launch to prevent sediment and other pollutants from entering Lake Michigan via the boat launch/parking lot. The trench drain discharges into a StormTreat System, which is a sediment filter with wetland plants.

### **Estabrook Dam**

#### **Project Status: Active**

This project is evaluating and costing alternatives for managing the dam and associated PCB-contaminated sediments.

### **Elk Yard Renovation (Zoo)**

#### **Project Status: Complete**

Partially funded through a WDNR Urban Nonpoint Source Grant, this project consisted of the construction or rebuilding of a terrace and a swale and the installation of retaining walls in the elk yard at the Milwaukee County Zoo to reduce erosion and protect the elk pond from sediments.

### **Pond and Lagoon Management Plan**

#### **Project Status: Active**

A long-term management plan was developed for the lagoons, ponds and lakes owned by Milwaukee County. The plan has yet to be approved by the Milwaukee County Board.

### **MCG Wet Retention Basin #3**

#### **Project Status: Complete**

This project consisted of the creation a one-acre water quality pond. This project was partially funded by a grant from the WDNR.

### **Detention Basin Design**

#### **Project Status: Complete**

This project entailed the design and construction of a dry stormwater detention basin.

### **Washington Park Redevelopment**

#### **Project Status: Complete**

This park revitalization project included the removal of concrete along the lagoon. The concrete was replaced with turf.

### **Grantosa Creek BMP**

#### **Project Status: Active**

This project includes the design and installation of "Best Management Practices" along Grantosa Creek to reduce sediment, debris and other nonpoint source pollution that currently enters the stream.

### **Monkey Island Sanitary Sewer Connection (Zoo)**

#### **Project Status: Completed**

This project diverted water from the moat around Monkey Island at the Milwaukee county Zoo from the storm sewer to the sanitary sewer. The moat had constant drainage and overflow into the storm sewer system. The moat was untreated and cleaned 1 to 2 times each year. This project was partially funded through a WDNR Urban Nonpoint Source Grant.

### **Dall Sheep Area Renovations (Zoo)**

#### **Project Status: Completed**

This project diverted water from the dall sheep exhibit at the Milwaukee county Zoo from the storm sewer to the sanitary sewer. This project was partially funded through a WDNR Urban Nonpoint Source Grant.

**Dumpster-Trash Containment Pad (Zoo)****Project Status: Completed**

The scope of this project was to construct a containment pad and wash down bay within a pole building around the zoo's dumpsters. This was meant to contain the waste from equipment washing operations and route to the sanitary sewer. This work and the dumpsters had been previously placed on bare dirt and flowed to the storm sewer. The project was partially funded through a WDNR Urban Nonpoint Source Grant.

**Natural Areas Management and Education (Goal 2)****Trails and Natural Areas Crew****Project Status: Ongoing**

The Trails and Natural Areas Crew (the Crew), a collection of County staff, was formed in 2005 in order to assist regional Milwaukee County Parks staff with the management of approximately 7,500 acres of natural areas owned by the County, as well as maintenance of the Oak Leaf Trail and other Milwaukee County trails. The Crew controls invasive species within the natural areas using methods such as herbicide treatments and prescribed burning. Native plants are installed following invasive species removal in order to enhance the floral community. The Crew also coordinates volunteer efforts to manage natural areas within County parks.

**Nature in the Parks****Project Status: Ongoing**

Nature in the Parks is a cooperative program of the Milwaukee County Park System, Wehr Nature Center (located in Whitnall Park), and the University of Wisconsin Extension. This program uses the 220 acres at Whitnall Park as an outdoor classroom to educate a wide variety of groups about environmental topics such as land management and restoration, native habitats, and water quality.

**Lake Michigan Shoreline—Bluff Protection, Shoreline Stabilization, & Lake Access (Goal 3)****Bender Park Grounds Development****Project Status: Complete**

This project consisted of bluff stabilization including the construction of a quarry stone revetment, grading of the bluffs for stabilization, and the construction of an access road to the shoreline.

**Bender Park Slope & Bluff****Project Status: Complete**

This project involved the installation of wick drains within the bluff at Bender Park. The drains result in a dropped water table and a more stable slope.

**Grant Park - Seven Bridges****Project Status: Active**

This project involves the rebuilding of bridges in Grant Park along the lakefront. Better public access to lakefront areas will be provided.

**Sailing Center Ramp****Project Status: Active**

This project will increase public access to the lakefront. A wheelchair accessible ramp was constructed from the dock in order to provide better access to boats.

**South Shore Breakwater Planning****Project Status: Complete**

This project includes the construction of a shoreline protection system and replacement bike trail along the bluff located west of the failing breakwater near South Shore Park. This project will provide environmental and erosion protection.

**South Shore Breakwater Study****Project Status: Completed**

This was a U.S. Army Corps of Engineers study that provided to Milwaukee County quantitative information regarding the existing breakwater in Lake Michigan. The breakwater is located parallel to the shoreline, and extends 7600 feet from the gap offshore from the South Shore Park pavilion to the south line of Bay View Park.

**St. Francis Bike Trail****Project Status: Complete**

This project consisted of the rebuilding of a part of the Oak Leaf Trail along Lake Michigan shoreline in St. Francis as part of a new development. The new trail improves access to the lake. As part of the agreement, the developer completed a shoreline stabilization component.

**Geographic Information System (Goal 4)****GIS Implementation****Project Status: Complete**

This project involved the installation of a critical Enterprise GIS network infrastructure (ArcSDE and Sql Server 2000), and the conversion of the County's GIS data layers to Enterprise GIS format (Geodatabase). Access to the County's Enterprise data was provided to all county departments.

**Distribution of GIS Data****Project Status: Active**

A critical Enterprise Web mapping infrastructure (ArcIMS and Web Server) was purchased and installed. GIS data is expected to be made available to the general public via the internet in Spring 2006.